

Public and Private Debt in the United States, 1929-40¹

By Robert E. Bangs

INCREASED private financing due to expansion in demand generated by the Defense Program and, to a lesser extent, continued public deficit financing necessitated by the inauguration of that program, combined to raise net public and private debt in the United States by 5.1 billion dollars during 1940. At the end of that year combined public and private net debt reached 167.3 billion dollars; private debt accounted for 69 percent of this total while the remaining 31 percent was represented by public debt.

This comprehensive total of domestic indebtedness in the United States was, on December 31, 1940, 3.2 percent higher than the corresponding figure at the close of 1939 but was still 3.9 percent below the 1930 record high of 173.7 billion dollars, due to the substantial liquidation of debt which occurred during the depression years. In contrast to the figure of \$1,263 for 1940, net indebtedness per capita was \$1,406 and \$1,184 for 1930 and 1934, respectively, the dates when per capita debt reached high and low points for the 1929-40 period.

During 1940, private debt increased more than public debt, both in dollar amount and in percentage terms. The increase in net private indebtedness of all types amounted to 3.6 billion dollars or 3.2 percent over 1939, while the increase in net public debt was 1.6 billions or 3.1 percent over the 1939 year-end figure.

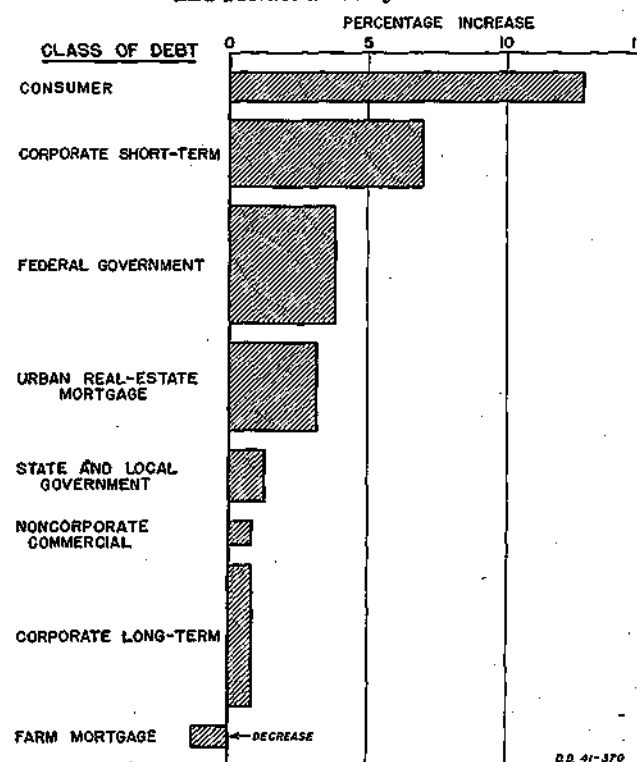
All the major types of private debt, except farm mortgages, rose during 1940, although the increases, in percentage terms, were very uneven, as may readily be seen from figure 9. The most striking debt increase during the year, as this figure shows, occurred in outstanding consumer credit which advanced by 12.8 percent and added approximately 1 billion dollars to current purchasing power. About one-half of the increase represented heavier automobile financing.

This increase in consumer debt suggests both that the rise in income and employment during 1940 was generally expected to be maintained or even continued during the year ahead, and that the prospect of shortages was accelerating consumer buying. The close association between outstanding consumer debt and national income which characterized not only 1940 but the whole of the past decade (see fig. 10) cannot be expected to continue once the Presidential order authorizing

control of installment credit is successfully implemented and the supplies of new durable goods available for sale decline because of priority control over raw materials.

The increase of 1.3 billion dollars in corporate short-term debt during 1940 was concentrated among industrial companies and flowed chiefly from the need of business for additional working capital. Although some

Figure 9.—Percentage Change 1940 from 1939 in Net Public and Private Debt by Classes



NOTE.—The width of each bar represents the percent that each class is of the total debt for 1939.

Source: U. S. Department of Commerce.

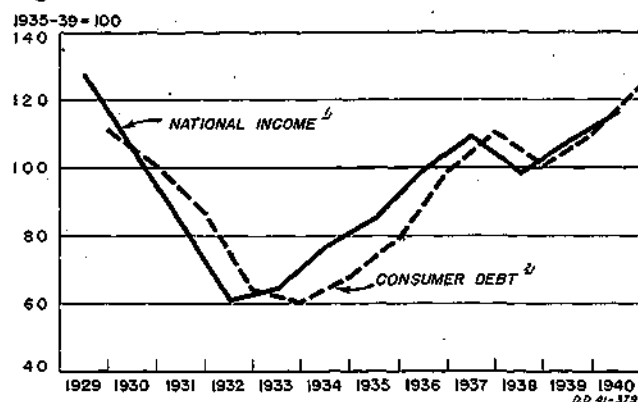
increase in current business indebtedness is characteristic of economic expansion, this unusually large rise in corporate short-term debt relative to the rise in national income is evidence of the changes in character of production necessitated by the rearmament program and of the preparation for further business expansion during 1941.

Domestic indebtedness is an important form of investment for individual savings, particularly those savings which are mobilized by banks, insurance companies, and similar financial institutions. Since these institutions invest principally in debt securities, that

¹ The bulk of the material for this report was gathered by J. Wesley Sternberg, formerly economic analyst in the Bureau of Foreign and Domestic Commerce. Mr. Sternberg has prepared a more complete report on *Indebtedness in the United States* which will be published in the near future. This larger report, covering the 12-year period 1929-40, will give more detailed break-downs of the debt estimates and will present a discussion of the sources of information and methods of estimation used.

part of individual saving placed with financial intermediaries is made available for capital formation chiefly through debt financing by business. During a period such as the present, when important changes are occurring in both the volume and composition of capital formation, the flow of savings into creditor claims constitutes one method of partially meeting the

Figure 10.—Indexes of National Income and Consumer Debt



¹ Total for year.

² As of December 31.

Source: U. S. Department of Commerce.

financial requirements of those business enterprises which are enlarging their plant facilities and which have a larger volume of output in process because of the acceleration in demand for final products.

Trends in Net Debt, 1929-1940.

Fluctuations in the volume of indebtedness over the 1929-1940 period, shown in figures 11, 12, and 13 reveal the varying degrees of sensitivity to economic changes exhibited by different classes of debt but they indicate as well the presence of special factors operating to influence particular debt categories. For example, although the trend of farm and nonfarm mortgage debt was roughly similar during the years 1931-36, this similarity has been less apparent during recent years.

The trends in public and private debt were opposite during a substantial part of the period since 1929. This is, of course, a result of the fact that the reduction in private debt was a consequence of the same underlying conditions—decreasing business activity, employment, and production—which led to the increase in public debt during the depression period.

Changes in the volume of outstanding private debt generally follow the trend of industrial production and national income although adjustments in the debt structure tend to lag somewhat behind the movements in these two basic series. Furthermore, the duration of the lag varies considerably among the different component parts of net private debt; some outstandings for example, consumer debt, showing very little lag while other series show movements which run considerably behind changes in the level of economic activity.

A number of factors account for the existence of these lags. The rigidity of long-term debt contracts, the prior claims of creditors against the incomes of enterprises, and the slowness of the legal machinery for debt adjustment all contribute to delayed debt reduction during periods of economic contraction and falling prices.

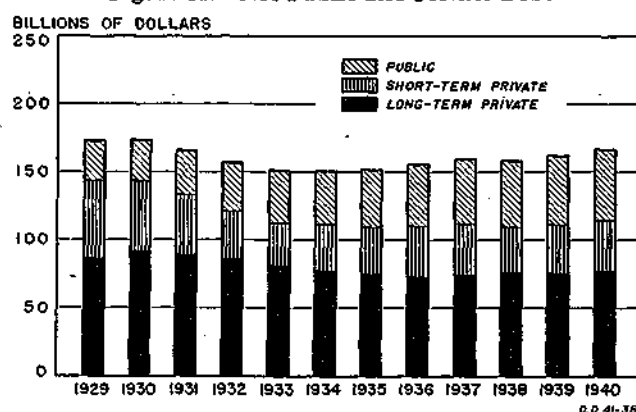
Similarly, during expansion the long-term debt of business enterprises may expand relatively less rapidly than output, both because the capital market is more receptive to equity financing and because the higher volume of new borrowing is more nearly offset by increased capacity to retire old obligations.

One caution should be observed in interpreting the aggregate private debt figures. The trend in both the long- and short-term aggregates is the net result of the changes in the components of these aggregates. Since in certain years these components moved in different directions, the changes in the aggregates tend not to reveal the full dispersion of the changes in particular debt classes.

Short-term debts naturally proved to be more sensitive to economic changes during the period since 1929 than did long-term obligations. This sensitivity found expression not only in the timing of changes, short-term obligations responding more promptly to business expansion and contraction, but also in the amplitude of changes which, generally speaking, were more pronounced among the classes of short-term debt.

Certain major trends in the debt structure, extending over the whole 12-year period, are evident. Public debt has risen in each year, although the increase is considerably more moderate than is evident from the gross public debt figures. In each year since 1929,

Figure 11.—Net Public and Private Debt

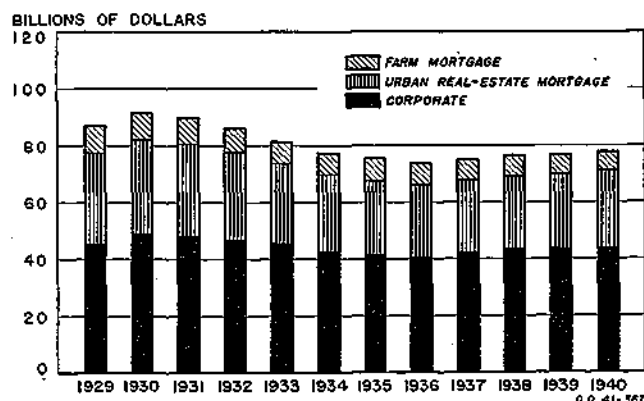


Source: U. S. Department of Commerce.

an increasing portion of the public debt has either been held as an asset in various government accounts or offset by loans receivable from the public. This latter offset against the public debt is indicative of the increasing importance of government as a financial intermediary, borrowing funds from the public but relending them to farmers, home purchasers, and busi-

ness enterprises in need of additional credits not readily obtained through traditional channels. Thus, a substantial part of the rise in public debt since 1933 has resulted from a substitution of public for private credit. This substitution, carried out through the lending activities of such Federal agencies as the Reconstruction Finance Corporation or the Home Owners

Figure 12.—Long-Term Private Debt by Major Types



Source: U. S. Department of Commerce.

Loan Corporation, made possible not only the refinancing of certain critical types of debt but also the release of fresh funds required for new investment.

In spite of a slight increase since 1938, the general trend of corporate debt, both short and long term, has been downward during the post-1929 period. A major factor which helped to produce this trend was the relatively low level of corporate investment during these years. Funds accumulated incidental to the charging of depreciation and depletion were in many instances employed for debt retirement rather than for reinvestment in plant and equipment.

The sharp downward trend which is evident in the figures on debt of individuals and unincorporated business contracted for commercial purposes is a result primarily of the great contraction in the volume of brokers' loans since 1929. The volume of these loans has become progressively smaller, thus dominating the trend evident in this class of indebtedness.

Among the major classes of long-term private debt farm mortgages have moved steadily lower in volume since 1929 while urban mortgages, although decreasing through 1937, have since risen to a slightly higher level.

Thus, in summary, all types of private debt were substantially lower in 1940 than in 1929, except for consumer debt which was well above the 1929 level.

Concepts of Net and Gross Debt.

The estimate of net public and private debt is designed to measure the indebtedness of final borrowers in the United States. To obtain the net debt figures, the total of legal debt obligations outstanding are corrected by eliminating intermediary debt (i. e., debt which is offset by receivables arising from the relending

of borrowed funds) and debt issued by but held within a "unit" having economic coalescence. For purposes of the present estimates four such "units" are employed:

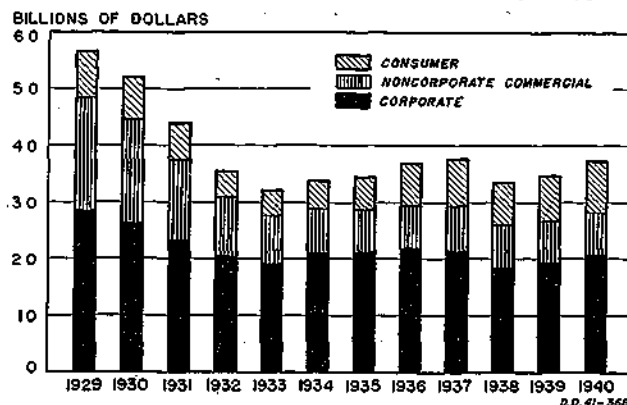
1. The Federal Government unit, i. e., the United States Government and its corporations and agencies.
2. The local government unit, i. e., the combined State and local governments.¹
3. The corporate unit, i. e., the individual corporate system under a single management but often consisting of several legally separate corporations.
4. The noncorporate unit; i. e., the separate unincorporated business establishment or the individual person.

This selection of units means that gross debt estimates² are brought to a net basis by the following eliminations:

- a. Debts issued by government but held by government in trust, investment, or sinking funds.
- b. Intercompany obligations of corporate systems in cases where these "systems" are for all practical purposes a single economic unit coordinated by a common policy.
- c. Federal intermediary debt; i. e., that portion of the debt of Federal agencies which is offset by loans receivable from the public.³

The elimination of intermediary debt and of debt "internal" to any of the four units employed does not mean that these eliminated obligations are of no importance, nor does it mean that for all purposes these contracts may properly be disregarded. Rather the purpose of the eliminations is to remove from the debt figures those transfers which have less economic

Figure 13.—Short-Term Private Debt by Major Types



Source: U. S. Department of Commerce.

significance than the transfers from savers and other grantors of credit to ultimate borrowers. By thus removing the effects of changing financial organization, the resultant net debt figures give a clearer and simpler

¹ Strictly, the combined State and local governments do not form a significant economic unit, except so far as the whole population is concerned. But the available figures for "internal" debt are such that the exact amount of its own securities held by each local government division is not calculable. However, by consolidating and treating all State and local government divisions as parts of a single debt unit, these estimates are rendered comparable with those for the Federal government and the resulting estimate gives a much better picture of the debt of State and local governments as ultimate borrowers than the gross debt figures.

² The Department of Commerce gross debt estimates do not include the intermediary debt of financial institutions such as deposit liabilities of banks and obligations of life insurance companies to policyholders. These debts are sometimes included in the totals given in other debt studies.

³ This portion of the Federal debt obviously duplicates that portion of private debt arising from these same loans to the public by Federal agencies.

picture of the more important major trends in the debt structure.

The details involved in calculating the net public debt are shown in table 2. Both Federal Government and Federal agency obligations held by divisions of the United States Government have been consolidated to

determine the net public debt held outside the Government. Table 3 gives the information relative to both gross and net debt of corporations, adjustments having been made to place corporate obligations on both a consolidated and unconsolidated basis consistently for the entire period.

Table 1.—Net Debt in the United States: 1929-40¹

Item	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Amount (millions of dollars)												
Net public and private debt.....	172,938	173,735	166,596	157,161	151,059	150,313	151,825	155,814	159,609	157,996	162,144	167,254
Net public debt.....	29,412	30,097	33,009	35,507	37,835	38,990	41,897	45,503	47,134	48,300	50,765	52,326
Federal and Federal agencies.....	18,698	18,391	17,091	18,713	21,028	23,081	25,904	29,470	31,810	32,618	34,762	36,115
State and local.....	13,714	14,706	15,918	16,794	16,807	15,915	15,993	16,033	15,324	15,682	16,003	16,211
Net private debt.....	143,526	143,638	133,587	121,654	113,224	111,317	109,928	110,311	112,475	109,696	111,379	114,928
Long-term debt.....	87,041	91,686	89,608	86,094	81,105	77,401	75,306	73,332	74,804	76,181	76,516	77,624
Corporate.....	45,316	48,037	48,027	46,845	45,444	42,828	41,637	40,361	42,086	43,428	43,355	43,723
Individual and noncorporate.....	41,725	42,649	41,666	39,249	35,661	34,573	33,669	32,971	32,718	32,753	33,161	33,901
Farm mortgage.....	9,631	9,458	9,214	8,635	7,887	7,786	7,630	7,390	7,214	7,071	6,910	6,821
Urban real estate mortgage.....	32,094	33,191	32,452	30,611	27,774	26,787	26,030	25,581	25,504	25,682	26,251	27,080
Short-term debt.....	56,545	52,052	43,984	35,660	32,119	33,916	34,622	36,979	37,671	33,515	34,863	37,304
Corporate.....	28,609	26,119	23,229	20,365	19,199	21,064	21,164	21,924	21,392	18,447	19,250	20,599
Individual and noncorporate.....	27,936	25,933	20,665	15,195	12,920	12,852	13,458	15,055	16,279	15,068	15,613	16,705
Commercial and for purchase of securities.....	19,794	18,533	14,295	10,472	8,483	7,840	7,598	7,780	8,154	7,698	7,548	7,605
Consumer.....	8,142	7,400	6,370	4,723	4,437	4,982	5,860	7,275	8,125	7,400	8,065	9,100
Indexes (1935-39=100)												
Net public and private debt.....	109.9	110.3	105.8	99.8	95.9	95.5	96.4	98.9	101.4	100.3	103.0	106.2
Net public debt.....	63.0	64.4	70.7	76.0	81.0	83.5	89.7	97.4	100.9	103.4	108.7	112.0
Federal and Federal agencies.....	50.9	49.9	55.4	60.7	68.2	74.9	84.2	95.6	101.6	105.8	112.8	117.2
State and local.....	86.3	92.5	100.1	105.7	105.7	100.1	100.2	100.9	99.6	98.7	100.7	102.0
Net private debt.....	129.6	129.7	120.6	109.8	102.2	100.5	99.3	99.6	101.6	99.0	100.6	103.8
Long-term debt.....	115.7	121.7	119.2	114.4	107.8	102.9	100.1	97.5	99.4	101.3	101.7	103.2
Corporate.....	107.5	116.0	113.9	111.1	107.8	101.6	98.7	95.7	98.8	103.0	103.8	103.7
Individual and noncorporate.....	126.2	129.0	126.1	118.7	107.9	104.6	101.9	99.7	99.0	99.1	100.3	102.6
Farm mortgage.....	132.9	130.5	127.2	119.2	108.9	107.5	105.4	102.0	99.6	97.6	95.4	94.1
Urban real estate mortgage.....	124.3	128.6	125.7	118.6	107.6	103.8	100.9	99.1	98.8	99.5	101.7	104.9
Short-term debt.....	169.1	146.5	123.5	100.1	90.4	95.5	97.4	104.1	106.0	94.3	98.1	105.0
Corporate.....	140.6	127.8	113.7	99.7	94.0	103.2	103.6	107.3	104.7	90.3	94.2	100.8
Individual and noncorporate.....	185.1	171.8	136.9	100.7	85.6	84.9	89.2	99.7	107.8	99.8	103.4	110.7
Commercial and for purchase of securities.....	255.4	239.1	184.5	135.1	109.5	101.2	98.0	100.4	105.2	98.9	97.4	98.1
Consumer.....	110.9	100.7	86.7	64.3	60.4	67.8	79.8	90.0	110.6	100.7	109.8	123.9

¹ The debt aggregates are, in the main, composed of indebtedness outstanding at the end of the calendar year and, accordingly are treated as year-end totals.

Table 2.—Gross and Net Public Debt: 1929-40

(Millions of dollars)

Item	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Gross public debt.....	35,401	36,375	30,182	43,154	48,176	57,274	60,882	64,732	67,354	67,093	69,896	73,094
Federal and Federal agencies.....	18,170	17,016	19,648	23,350	23,191	37,988	41,453	45,070	47,760	47,457	49,900	52,848
Federal.....	16,301	16,026	17,826	20,805	23,515	28,480	30,557	34,406	37,296	36,439	41,061	45,039
Federal agencies.....	1,869	1,890	1,822	2,545	4,376	9,508	10,896	10,664	10,474	8,018	7,939	7,809
State and local.....	17,231	18,459	19,534	19,804	19,985	19,286	19,429	19,662	19,594	19,576	19,996	20,246
Duplicating debt:												
Total public-debt duplications.....	5,992	6,278	6,173	7,647	10,341	18,278	18,985	19,229	20,220	18,733	19,131	20,708
Federal and Federal agencies.....	2,472	2,525	2,557	4,637	7,163	14,967	15,480	15,600	16,450	14,839	15,138	16,733
State and local.....	3,520	3,753	3,616	3,010	3,178	3,311	3,496	3,629	3,770	3,894	3,993	4,035
Net public debt.....	29,412	30,097	33,009	35,507	37,835	38,990	41,897	45,503	47,134	48,300	50,765	52,326
Federal and Federal agencies.....	18,698	18,391	17,091	18,713	21,028	23,081	25,904	29,470	31,810	32,618	34,762	36,115
State and local.....	13,714	14,706	15,918	16,794	16,807	15,915	15,993	16,033	15,324	15,682	16,003	16,211

¹ Adapted from reports of the Secretary of the Treasury and of the Bureau of the Census, Department of Commerce.

Table 3.—Gross and Net Corporate Debt: 1929-40¹

(Millions of dollars)

Item	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Gross corporate debt.....	90,291	91,670	86,904	81,988	78,819	77,927	76,545	75,509	76,597	74,279	74,800	76,500
Long-term.....	65,348	69,769	68,614	67,146	65,410	62,211	60,749	58,930	59,784	52,133	51,800	52,000
Short-term.....	34,943	31,901	28,350	24,842	23,409	25,716	25,796	26,579	25,813	22,146	23,000	24,500
Intercompany debt.....	16,366	16,614	18,708	14,778	14,176	14,005	13,744	13,224	13,119	12,404	12,195	12,178
Long-term.....	10,032	10,832	10,587	10,301	9,960	9,383	9,112	8,509	8,698	8,705	8,445	8,277
Short-term.....	6,334	5,782	8,121	4,477	4,216	4,622	4,632	4,715	4,421	3,699	3,750	3,901
Net corporate debt.....	73,925	75,056	71,256	67,210	64,643	63,922	62,801	62,285	63,478	61,875	62,605	64,322
Long-term.....	45,316	48,937	48,027	46,845	45,444	42,828	41,637	40,361	42,086	43,428	43,355	43,723
Short-term.....	28,609	26,119	23,229	20,365	19,199	21,094	21,164	21,924	21,392	18,447	19,250	20,599

¹ Adjusted to a gross debt or "unconsolidated" basis and to a net debt of "consolidated" basis from balance-sheet data submitted to the Bureau of Internal Revenue in connection with filing corporate income tax returns, and also in the case of railroads, from balance sheets filed with the Interstate Commerce Commission.